

STORAGE

FAQ

Q I've bought a 20X DVD writer, but there aren't any blank 20X DVD media available for purchase. Does this mean that I cannot burn DVDs at my writer's fastest possible speed?

A The maximum stated speed of available DVD media always lags behind the maximum stated speeds of the latest DVD writers. Unfortunately, you're unlikely to achieve the manufacturers' stated speed claims when writing single-layer DVDs, even with the latest media. In our tests, we've achieved maximum burn speeds of only 11X or 12X – substantially less than the claimed 18X or 20X. We've had better results writing two-layer DVDs, where we've achieved write speeds of 6X or 7X, which is closer to the manufacturers' stated write speeds.

You can use Nero's CD-DVD Speed utility with your DVD writer to gauge how fast your DVD writer actually is. For the best possible write speeds, use reliable branded media.

Alan Lu
PC systems and
storage expert

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PIONEER DVR-112

★★★★

£26 inc VAT



SAMSUNG



Super Writemaster SH-S203

★★★★★

£26 inc VAT



Manufacturers tend to make grand claims about how fast their DVD writers can burn discs. Samsung claims the Super Writemaster SH-S203 can write to DVD+R DL discs at a blistering 16X and DVD-R DL discs at 12X. Pioneer's claims for its latest DVD writer, the DVR-112, are less ambitious with a claimed 10X for both types of two-layer disc. While the Super Writemaster is faster than the DVR-112, the gap isn't as wide as the specifications suggest.

The Super Writemaster couldn't reach its stated speeds for writing two-layer DVDs, managing just over

7.5X for both DVD-R DL and DVD+R DL discs, although this still makes it one of the fastest DVD writers we've seen when burning 8.5GB discs. Similarly, while it couldn't reach its claimed 20X speed for single-layer DVDs, managing just under 11X, this is still faster than many other current DVD writers.

Pioneer's DVR-112 is slower than the Super Writemaster at writing two-layer DVDs, burning discs at less than 6.5X. It cannot quite keep up with the Super Writemaster and it can't match its claimed 10X for writing 8.5GB discs, either. It came very close to matching the Super Writemaster when burning single-layer DVDs, though, despite being 2X slower on paper.

Unlike the DVR-112, and most other DVD writers, the Super Writemaster uses SATA instead of PATA to connect to your PC. The thinner and more flexible SATA cables are easier to install, especially if the interior of your computer is messy and strewn with cables.

Although the Super Writemaster isn't significantly faster than the DVR-112, it's the better-value DVD writer. Both burners cost £26, but Samsung's drive is bundled with software, including Nero Recode, which allows you to compress an 8.5GB DVD movie to fit on a 4.7GB disc. The Super Writemaster SH-S203 is a speedy DVD writer with an excellent software bundle, and all at a great price.

Alan Lu

PIONEER SUMMARY

- ✓ Good single-layer write speeds
- ✗ Disappointing two-layer write speeds
- ✗ No software

INTERNAL DVD WRITER 18X DVD-R, 18X DVD+R, 6X DVD-RW, 8X DVD+RW, 10X DVD-R DL, 10X DVD+R DL, 12X DVD-RAM, 40X CD-R, 32X CD-RW
PART CODE DVR-112
SUPPLIER www.amazon.co.uk
DETAILS www.pioneer.co.uk

PERFORMANCE (see page 62)



SAMSUNG SUMMARY

- ✓ Excellent performance
- ✓ SATA connection
- ✓ Useful software bundle

INTERNAL DVD WRITER 20X DVD-R, 20X DVD+R, 6X DVD-RW, 8X DVD+RW, 12X DVD-R DL, 16X DVD+R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW
PART CODE SH-S203B
SUPPLIER www.scan.co.uk 0870 755 4747
DETAILS www.samsungoms-europe.com/

PERFORMANCE (see page 62)



Also consider...

LG GSA-H55N

★★★★★

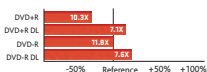
£29 inc VAT



LG's GSA-H55N DVD writer allows you to password-protect your DVDs before you burn them using Ahead's Nero software, while barely affecting the fast writing speeds. Unfortunately, files on such discs are still visible in Windows Explorer with their thumbnails intact. The password-protection feature needs a little improvement, but it should still deter casual snoopers.

The GSA-H55N is a fast DVD writer at a low price.

INTERNAL DVD WRITER 20X DVD-R, 20X DVD+R, 6X DVD-RW, 8X DVD+RW, 10X DVD-R DL, 10X DVD+R DL, 12X DVD-RAM, 48X CD-R, 32X CD-RW
PART CODE GSA-H55N
SUPPLIER www.scan.co.uk
DETAILS www.lge.com
✓ Fast burning speeds; inexpensive ✗ Password protection needs improvement
FULL REVIEW Oct 2007



BUFFALO DriveStation Combo 500GB

★★★★★

£100 inc VAT



Buffalo's DriveStation Combo costs just 22p per gigabyte. It is one of the fastest FireWire 400 disks we've seen and produced consistently solid results over its USB connection. The Memeo AutoBackup software automatically backs up your data while you work.

It is excellent value and it won a Best Buy award in our recent external hard disk Labs round-up.

EXTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), USB Hi-Speed and FireWire 400 interfaces
PART CODE HD-HC500IU2
SUPPLIER www.lambda-tek.co.uk
DETAILS www.buffalo-technology.com ✓ Good value; fast performance; good backup software
FULL REVIEW Sep 2007



ANTEC Veris MX-1

★★★★★

£32 inc VAT



AKASA Integral P2 E-SATA

★★★★★

£26 inc VAT



If you've replaced your internal hard disk with a larger model, it can be recycled as an external disk by fitting it inside an enclosure. Most enclosures connect to your PC using USB – fast enough for everyday use, but less than ideal for transferring large amounts of data such as DV or HD footage.

Antec's Veris MX-1 and Akasa's Integral P2 E-SATA have eSATA ports. eSATA is the external version of the SATA II interface used by internal hard disks. It is supposed to be as fast as SATA II, but the results of our Labs in *Shopper* September 2007 suggest some eSATA disks can be slower.

Luckily, this wasn't the case with the Veris MX-1 or the Integral P2 E-SATA. We tested both with the same 320GB Samsung disk, and the file

transfer speeds were in line with what we'd expect from an internal SATA hard disk. The Veris was faster than any eSATA disk we've seen recently. Neither is quite as fast as the fastest SATA disks in all our tests, though. Both enclosures also have USB ports for use with computers that don't have eSATA. The file-copying performance of both was in line with what we'd expect. The Integral can also accommodate a PATA disk for use over USB.

Disassembling either enclosure to fit a disk is trickier than we'd like. Screwing a disk into the Integral's slide-out tray is straightforward enough, although it's easy to pinch the data and power cables between metal struts so care is required. Removing the Veris's disk tray can be fiddly as you have to first disconnect the tiny jumpers connecting the activity and power lights to the circuit board.

The Veris can only accommodate a SATA disk that uses a SATA power connector. The Integral can power disks that use a SATA or Molex connection. The unneeded cable can be disconnected, but this should be done carefully as they can snap easily. The Veris is quieter than the Integral, since it cushions the hard disk with a rubber bumper, reducing vibration and noise.

The Integral is cheaper and can accommodate SATA or PATA disks, but the Veris is quieter, faster, and our choice if you need an eSATA enclosure.

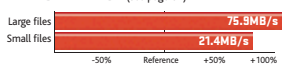
Alan Lu

ANTEC SUMMARY

- ✓ Quiet and attractive design
- ✓ Very fast eSATA performance
- ✗ Fiddly installation

SATA HARD DISK ENCLOSURE Takes one 3½in SATA hard disk, USB Hi-Speed, eSATA
PART CODE MX-1 UK
SUPPLIER www.amazon.co.uk
DETAILS www.antec.com/uk

PERFORMANCE (see page 62)

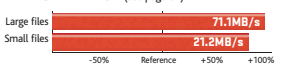


AKASA SUMMARY

- ✓ Fast performance
- ✓ Uses either a SATA or PATA disk
- ✗ Fiddly installation

HARD DISK ENCLOSURE Takes one 3½in SATA or PATA hard disk, USB Hi-Speed, eSATA
PART CODE AK-ENP2SATA-BLUK
SUPPLIER www.edge-online.net,
01352 733147
DETAILS <http://www.akasa.co.uk>

PERFORMANCE (see page 62)



CHOOSING AN... External Hard Disk

Follow the steps to find your ideal specs

SIZE: Desktop

CAPACITY: 500GB

SPINDLE SPEED: 7,200rpm

INTERFACE: USB Hi-Speed

Recommended minimum in grey

1 A basic external hard disk that's good enough for simple backups and designed to sit on your desktop with the specifications shown above will cost around £100.

2 If you need more capacity, it's best to buy the largest hard disk you can afford. If you're using your external hard disk to back up your internal disk, the general rule is to buy an external disk with twice the capacity of your internal disk so you have enough room for other files.

3 If you need to transport lots of files, you will need a portable hard disk. Drives using a 2½in hard disk (as in notebook PCs) are the best value and are available in capacities up to 250GB. They're small enough to slip into a coat pocket or a bag. However, these drives are more expensive per gigabyte than their desktop equivalents.

If size is really important, you need a pocket drive. An external hard disk that uses a 1.8in hard disk (iPod sized) is a good bet. These drives have a maximum capacity of 80GB.

4 Performance can be a big issue with 2½in drives. If you are writing a lot of data to and from a disk, choose one with a high spin speed, as you'll get better throughputs. Most pocket-sized hard disks have a spindle speed of 3,600rpm, while most 2½in hard disks have a spindle speed of 4,200rpm or 5,400rpm. Desktop hard disks have a spindle speed of 7,200rpm.

5 USB Hi-Speed is the most common interface found on external hard disks and is also backwards-compatible with the slower USB 1.1. This is fast enough for most uses, but if you deal with very large files such as DV movies on a regular basis, a FireWire 400 hard disk is going to be quicker.

FireWire 800 is even zippier, but few hard disks and even fewer PCs have FireWire 800 ports. eSATA hard disks can be even faster, but unless you have a very recent PC, you will need to add eSATA ports to your computer using an expansion card.

SEAGATE Barracuda 7200.10 Ultra ATA/100 500-GB Hard Drive

★★★★★

£66 inc VAT

PRICE CUT!

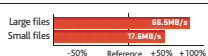


If you need a high-capacity hard disk for your files but your PC's motherboard lacks a SATA port, Seagate's PATA 500GB Barracuda 7200.10 is ideal. It is excellent value with an incredibly low cost per gigabyte of 14p. It's also very quick.

This is the best PATA drive we have reviewed.



EXTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), PATA interface
PART CODE ST3500630A
SUPPLIER www.dabs.com
DETAILS www.seagate.com
✓ Low cost per gigabyte; fast for large files ✗ Not quite as quick with small files
FULL REVIEW Jul 2007



SAMSUNG SpinPoint T166-HD501LJ

★★★★★

£68 inc VAT



Samsung's 500GB SATA hard disk is a great choice if you need more space for programs, movies, music, photos and documents. It costs just 16p per gigabyte, but it's the fastest 7,200rpm SATA internal hard disk we've seen so far.

It's an amazingly quick drive and great value, too.



3½in INTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), SATA 300 interface, 7,200rpm spindle speed, 16MB cache
PART CODE HD501LJ
SUPPLIER www.dabs.com
DETAILS www.samsung.com
✓ Very fast; low cost per gigabyte FULL REVIEW Jul 2007

